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ANNALS OF EDUCATION

Most Likely to Succeed

How do we hire when we can't tell who's right for the job?

by Malcolm Gladwell

1.

On the day of the big football game between the University of Missouri Tigers and the Cowboys of Oklahoma State, a football scout named Dan Shonka sat in his hotel, in Columbia, Missouri, with a portable DVD player. Shonka has worked for three National Football League teams. Before that, he was a football coach, and before that he played linebacker—although, he says, "that was three knee operations and a hundred pounds ago." Every year, he evaluates somewhere between eight hundred and twelve hundred players around the country, helping professional teams decide whom to choose in the college draft, which means that over the last thirty years he has probably seen as many football games as anyone else in America. In his DVD player was his homework for the evening's big game—an edited video of

the Tigers' previous contest, against the University of Nebraska Cornhuskers.

Shonka methodically made his way through the video, stopping and re-winding whenever he saw something that caught his eye. He liked Jeremy Maclin and Chase Coffman, two of the Mizzou receivers. He loved William Moore, the team's bruising strong safety. But, most of all, he was interested in the Tigers' quarterback and star, a stocky, strong-armed senior named Chase Daniel.

"I like to see that the quarterback can hit a receiver in stride, so he doesn't have to slow for the ball," Shonka began. He had a stack of evaluation forms next to him and, as he watched the game, he was charting and grading every throw that Daniel made. "Then judgment. Hey, if it's not there, throw it away and play another day. Will he stand in there and take a hit, with a guy breathing down his face? Will he be able to step

right in there, throw, and still take that hit? Does the guy throw better when he's in the pocket, or does he throw equally well when he's on the move? You want a great competitor. Durability. Can they hold up, their strength, toughness? Can they make big plays? Can they lead a team down the field and score late in the game? Can they see the field? When your team's way ahead, that's fine. But when you're getting your ass kicked I want to see what you're going to do."

He pointed to his screen. Daniel had thrown a dart, and, just as he did, a defensive player had hit him squarely. "See how he popped up?" Shonka said. "He stood right there and threw the ball in the face of that rush. This kid has got a lot of courage." Daniel was six feet tall and weighed two hundred and twenty-five pounds: thick through the chest and trunk. He carried himself with a self-

assurance that bordered on cockiness. He threw quickly and in rhythm. He nimbly evaded defenders. He made short throws with touch and longer throws with accuracy. By the game's end, he had completed an astonishing seventy-eight per cent of his passes, and handed Nebraska its worst home defeat in fifty-three years. "He can zip it," Shonka said. "He can really gun, when he has to." Shonka had seen all the promising college quarterbacks, charted and graded their throws, and to his mind Daniel was special: "He might be one of the best college quarterbacks in the country."

But then Shonka began to talk about when he was on the staff of the Philadelphia Eagles, in 1999. Five quarterbacks were taken in the first round of the college draft that year, and each looked as promising as Chase Daniel did now. But only one of them, Donovan McNabb, ended up fulfilling that promise. Of the rest, one descended into mediocrity after a decent start. Two were complete busts, and the last was so awful that after failing out of the N.F.L. he ended up failing out of the Canadian Football League as well.

The year before, the same thing happened with Ryan Leaf, who was the Chase

Daniel of 1998. The San Diego Chargers made him the second player taken over all in the draft, and gave him an eleven-million-dollar signing bonus. Leaf turned out to be terrible. In 2002, it was Joey Harrington's turn. Harrington was a golden boy out of the University of Oregon, and the third player taken in the draft. Shonka still can't get over what happened to him.

"I tell you, I saw Joey live," he said. "This guy threw lasers, he could throw under tight spots, he had the arm strength, he had the size, he had the intelligence." Shonka got as misty as a two-hundred-and-eighty-pound ex-linebacker in a black tracksuit can get. "He's a concert pianist, you know? I really—I mean, I really—liked Joey." And yet Harrington's career consisted of a failed stint with the Detroit Lions and a slide into obscurity. Shonka looked back at the screen, where the young man he felt might be the best quarterback in the country was marching his team up and down the field. "How will that ability translate to the National Football League?" He shook his head slowly. "Shoot."

This is the quarterback problem. There are certain jobs where almost nothing you can learn about candidates before they start predicts how they'll do once

they're hired. So how do we know whom to choose in cases like that? In recent years, a number of fields have begun to wrestle with this problem, but none with such profound social consequences as the profession of teaching.

2.

One of the most important tools in contemporary educational research is "value added" analysis. It uses standardized test scores to look at how much the academic performance of students in a given teacher's classroom changes between the beginning and the end of the school year. Suppose that Mrs. Brown and Mr. Smith both teach a classroom of third graders who score at the fiftieth percentile on math and reading tests on the first day of school, in September. When the students are retested, in June, Mrs. Brown's class scores at the seventieth percentile, while Mr. Smith's students have fallen to the fortieth percentile. That change in the students' rankings, value-added theory says, is a meaningful indicator of how much more effective Mrs. Brown is as a teacher than Mr. Smith.

It's only a crude measure, of course. A teacher is not solely responsible for how

much is learned in a classroom, and not everything of value that a teacher imparts to his or her students can be captured on a standardized test. Nonetheless, if you follow Brown and Smith for three or four years, their effect on their students' test scores starts to become predictable: with enough data, it is possible to identify who the very good teachers are and who the very poor teachers are. What's more—and this is the finding that has galvanized the educational world—the difference between good teachers and poor teachers turns out to be vast.

Eric Hanushek, an economist at Stanford, estimates that the students of a very bad teacher will learn, on average, half a year's worth of material in one school year. The students in the class of a very good teacher will learn a year and a half's worth of material. That difference amounts to a year's worth of learning in a single year. Teacher effects dwarf school effects: your child is actually better off in a "bad" school with an excellent teacher than in an excellent school with a bad teacher. Teacher effects are also much stronger than class-size effects. You'd have to cut the average class almost in half to get the same boost that

you'd get if you switched from an average teacher to a teacher in the eighty-fifth percentile. And remember that a good teacher costs as much as an average one, whereas halving class size would require that you build twice as many classrooms and hire twice as many teachers.

Hanushek recently did a back-of-the-envelope calculation about what even a rudimentary focus on teacher quality could mean for the United States. If you rank the countries of the world in terms of the academic performance of their schoolchildren, the U.S. is just below average, half a standard deviation below a clump of relatively high-performing countries like Canada and Belgium. According to Hanushek, the U.S. could close that gap simply by replacing the bottom six per cent to ten per cent of public-school teachers with teachers of average quality. After years of worrying about issues like school funding levels, class size, and curriculum design, many reformers have come to the conclusion that nothing matters more than finding people with the potential to be great teachers. But there's a hitch: no one knows what a person with the potential to be a great teacher looks like. The school system has a quarterback problem.

3.

Kickoff time for Missouri's game against Oklahoma State was seven o'clock. It was a perfect evening for football: cloudless skies and a light fall breeze. For hours, fans had been tailgating in the parking lots around the stadium. Cars lined the roads leading to the university, many with fuzzy yellow-and-black Tiger tails hanging from their trunks. It was one of Mizzou's biggest games in years. The Tigers were undefeated, and had a chance to become the No. 1 college football team in the country. Shonka made his way through the milling crowds and took a seat in the press box. Below him, the players on the field looked like pieces on a chessboard.

The Tigers held the ball first. Chase Daniel stood a good seven yards behind his offensive line. He had five receivers, two to his left and three to his right, spaced from one side of the field to the other. His linemen were widely spaced as well. In play after play, Daniel caught the snap from his center, planted his feet, and threw the ball in quick seven- and eight-yard diagonal passes to one of his five receivers.

The style of offense that the Tigers run is called the

"spread," and most of the top quarterbacks in college football—the players who will be drafted into the pros—are spread quarterbacks. By spacing out the offensive linemen and wide receivers, the system makes it easy for the quarterback to figure out the intentions of the opposing defense before the ball is snapped: he can look up and down the line, "read" the defense, and decide where to throw the ball before anyone has moved a muscle. Daniel had been playing in the spread since high school; he was its master. "Look how quickly he gets the ball out," Shonka said. "You can hardly go a thousand and one, a thousand and two, and it's out of his hand. He knows right where he's going. When everyone is spread out like that, the defense can't disguise its coverage. Chase knows right away what they are going to do. The system simplifies the quarterback's decisions."

But for Shonka this didn't help matters. It had always been hard to predict how a college quarterback would fare in the pros. The professional game was, simply, faster and more complicated. With the advent of the spread, though, the correspondence between the two levels of play had broken down almost entirely. N.F.L.

teams don't run the spread. They can't. The defenders in the pros are so much faster than their college counterparts that they would shoot through those big gaps in the offensive line and flatten the quarterback. In the N.F.L., the offensive line is bunched closely together. Daniel wouldn't have five receivers. Most of the time, he'd have just three or four. He wouldn't have the luxury of standing seven yards behind the center, planting his feet, and knowing instantly where to throw. He'd have to crouch right behind the center, take the snap directly, and run backward before planting his feet to throw. The onrushing defenders wouldn't be seven yards away. They would be all around him, from the start. The defense would no longer have to show its hand, because the field would not be so spread out. It could now disguise its intentions. Daniel wouldn't be able to read the defense before the snap was taken. He'd have to read it in the seconds after the play began.

"In the spread, you see a lot of guys wide open," Shonka said. "But when a guy like Chase goes to the N.F.L. he's never going to see his receivers that open—only in some rare case, like someone slips or there's a bust in the coverage. When that ball's leaving your hands in the pros, if you don't use your eyes to move the

defender a little bit, they'll break on the ball and intercept it. The athletic ability that they're playing against in the league is unbelievable."

As Shonka talked, Daniel was moving his team down the field. But he was almost always throwing those quick, diagonal passes. In the N.F.L., he would have to do much more than that—he would have to throw long, vertical passes over the top of the defense. Could he make that kind of throw? Shonka didn't know. There was also the matter of his height. Six feet was fine in a spread system, where the big gaps in the offensive line gave Daniel plenty of opportunity to throw the ball and see downfield. But in the N.F.L. there wouldn't be gaps, and the linemen rushing at him would be six-five, not six-one.

"I wonder," Shonka went on. "Can he see? Can he be productive in a new kind of offense? How will he handle that? I'd like to see him set up quickly from center. I'd like to see his ability to read coverages that are not in the spread. I'd like to see him in the pocket. I'd like to see him move his feet. I'd like to see him do a deep dig, or deep comeback. You know, like a throw twenty to twenty-five yards down the field."

It was clear that Shonka didn't feel the same hesitancy in evaluating the other Mizzou stars—the safety Moore, the receivers Maclin and Coffman. The game that they would play in the pros would also be different from the game they were playing in college, but the difference was merely one of degree. They had succeeded at Missouri because they were strong and fast and skilled, and these traits translate in kind to professional football.

A college quarterback joining the N.F.L., by contrast, has to learn to play an entirely new game. Shonka began to talk about Tim Couch, the quarterback taken first in that legendary draft of 1999. Couch set every record imaginable in his years at the University of Kentucky. "They used to put five garbage cans on the field," Shonka recalled, shaking his head, "and Couch would stand there and throw and just drop the ball into every one." But Couch was a flop in the pros. It wasn't that professional quarterbacks didn't need to be accurate. It was that the kind of accuracy required to do the job well could be measured only in a real N.F.L. game.

Similarly, all quarterbacks drafted into the pros are required to take an I.Q. test

—the Wonderlic Personnel Test. The theory behind the test is that the pro game is so much more cognitively demanding than the college game that high intelligence should be a good predictor of success. But when the economists David Berri and Rob Simmons analyzed the scores—which are routinely leaked to the press—they found that Wonderlic scores are all but useless as predictors. Of the five quarterbacks taken in round one of the 1999 draft, Donovan McNabb, the only one of the five with a shot at the Hall of Fame, had the lowest Wonderlic score. And who else had I.Q. scores in the same range as McNabb? Dan Marino and Terry Bradshaw, two of the greatest quarterbacks ever to play the game.

We're used to dealing with prediction problems by going back and looking for better predictors. We now realize that being a good doctor requires the ability to communicate, listen, and empathize—and so there is increasing pressure on medical schools to pay attention to interpersonal skills as well as to test scores. We can have better physicians if we're just smarter about how we choose medical-school students. But no one is saying that Dan Shonka is somehow missing some key ingredient in his analysis; that

if he were only more perceptive he could predict Chase Daniel's career trajectory. The problem with picking quarterbacks is that Chase Daniel's performance can't be predicted. The job he's being groomed for is so particular and specialized that there is no way to know who will succeed at it and who won't. In fact, Berri and Simmons found no connection between where a quarterback was taken in the draft—that is, how highly he was rated on the basis of his college performance—and how well he played in the pros.

The entire time that Chase Daniel was on the field against Oklahoma State, his backup, Chase Patton, stood on the sidelines, watching. Patton didn't play a single down. In his four years at Missouri, up to that point, he had thrown a total of twenty-six passes. And yet there were people in Shonka's world who thought that Patton would end up as a better professional quarterback than Daniel. The week of the Oklahoma State game, the national sports magazine ESPN even put the two players on its cover, with the title "CHASE DANIEL MIGHT WIN THE HEISMAN"—referring to the trophy given to college football's best player. "HIS BACKUP COULD WIN THE SUPER BOWL." Why did

everyone like Patton so much? It wasn't clear. Maybe he looked good in practice. Maybe it was because this season in the N.F.L. a quarterback who had also never started in a single college game is playing superbly for the New England Patriots. It sounds absurd to put an athlete on the cover of a magazine for no particular reason. But perhaps that's just the quarterback problem taken to an extreme. If college performance doesn't tell us anything, why shouldn't we value someone who hasn't had the chance to play as highly as someone who plays as well as anyone in the land?

4.

Picture a young preschool teacher, sitting on a classroom floor surrounded by seven children. She is holding an alphabet book, and working through the letters with the children, one by one: " 'A' is for apple. . . . 'C' is for cow." The session was taped, and the videotape is being watched by a group of experts, who are charting and grading each of the teacher's moves.

After thirty seconds, the leader of the group—Bob Pianta, the dean of the University of Virginia's Curry School of Education—stops the tape. He points to

two little girls on the right side of the circle. They are unusually active, leaning into the circle and reaching out to touch the book.

"What I'm struck by is how lively the affect is in this room," Pianta said. "One of the things the teacher is doing is creating a holding space for that. And what distinguishes her from other teachers is that she flexibly allows the kids to move and point to the book. She's not rigidly forcing the kids to sit back."

Pianta's team has developed a system for evaluating various competencies relating to student-teacher interaction. Among them is "regard for student perspective"; that is, a teacher's knack for allowing students some flexibility in how they become engaged in the classroom. Pianta stopped and rewound the tape twice, until what the teacher had managed to achieve became plain: the children were active, but somehow the class hadn't become a free-for-all.

"A lesser teacher would have responded to the kids' leaning over as misbehavior," Pianta went on. " 'We can't do this right now. You need to be sitting still.' She would have turned this off."

Bridget Hamre, one of Pianta's colleagues, chimed in: "These are three- and four-year-olds. At this age, when

kids show their engagement it's not like the way we show our engagement, where we look alert. They're leaning forward and wriggling. That's their way of doing it. And a good teacher doesn't interpret that as bad behavior. You can see how hard it is to teach new teachers this idea, because the minute you teach them to have regard for the student's perspective, they think you have to give up control of the classroom."

The lesson continued. Pianta pointed out how the teacher managed to personalize the material. " 'C' is for cow" turned into a short discussion of which of the kids had ever visited a farm. "Almost every time a child says something, she responds to it, which is what we describe as teacher sensitivity," Hamre said.

The teacher then asked the children if anyone's name "began with that letter. Calvin," a boy named Calvin says. The teacher nods, and says, "Calvin starts with 'C.' " A little girl in the middle says, "Me!" The teacher turns to her. "Your name's Venisha. Letter 'V.' Venisha."

It was a key moment. Of all the teacher elements analyzed by —the Virginia group, feedback a direct, personal response by a

teacher to a specific statement by a student—seems to be most closely linked to academic success. Not only did the teacher catch the "Me!" amid the wiggling and tumult; she addressed it directly.

"Mind you, that's not great feedback," Hamre said. "High-quality feedback is where there is a back-and-forth exchange to get a deeper understanding." The perfect way to handle that moment would have been for the teacher to pause and pull out Venisha's name card, point to the letter "V," show her how different it is from "C," and make the class sound out both letters. But the teacher didn't do that—either because it didn't occur to her or because she was distracted by the wiggling of the girls to her right.

"On the other hand, she could have completely ignored the girl, which happens a lot," Hamre went on. "The other thing that happens a lot is the teacher will just say, 'You're wrong.' Yes-no feedback is probably the predominant kind of feedback, which provides almost no information for the kid in terms of learning."

Pianta showed another tape, of a nearly identical situation: a circle of pre-schoolers around a teacher. The lesson was about how

we can tell when someone is happy or sad. The teacher began by acting out a short conversation between two hand puppets, Henrietta and Twiggle: Twiggle is sad until Henrietta shares some watermelon with him.

"The idea that the teacher is trying to get across is that you can tell by looking at somebody's face how they're feeling, whether they're feeling sad or happy," Hamre said. "What kids of this age tend to say is you can tell how they're feeling because of something that happened to them. They lost their puppy and that's why they're sad. They don't really get this idea. So she's been challenged, and she's struggling."

The teacher begins, "Remember when we did something and we drew our face?" She touches her face, pointing out her eyes and mouth. "When somebody is happy, their face tells us that they're happy. And their eyes tell us." The children look on blankly. The teacher plunges on: "Watch, watch." She smiles broadly. "This is happy! How can you tell that I'm happy? Look at my face. Tell me what changes about my face when I'm happy. No, no, look at my face. . . . No. . . ."

A little girl next to her says, "Eyes," providing the teacher with an opportunity to use

one of her students to draw the lesson out. But the teacher doesn't hear her. Again, she asks, "What's changed about my face?" She smiles and she frowns, as if she can reach the children by sheer force of repetition. Pianta stopped the tape. One problem, he pointed out, was that Henrietta made Twiggle happy by sharing watermelon with him, which doesn't illustrate what the lesson is about.

"You know, a better way to handle this would be to anchor something around the kids," Pianta said. "She should ask, 'What makes you feel happy?' The kids could answer. Then she could say, 'Show me your face when you have that feeling? O.K., what does So-and-So's face look like? Now tell me what makes you sad. Show me your face when you're sad. Oh, look, her face changed!' You've basically made the point. And then you could have the kids practice, or something. But this is going to go nowhere."

"What's changed about my face?" the teacher repeated, for what seemed like the hundredth time. One boy leaned forward into the circle, trying to engage himself in the lesson, in the way that little children do. His eyes were on the

teacher. "Sit up!" she snapped at him.

As Pianta played one tape after another, the patterns started to become clear. Here was a teacher who read out sentences, in a spelling test, and every sentence came from her own life—"I went to a wedding last week"—which meant she was missing an opportunity to say something that engaged her students. Another teacher walked over to a computer to do a PowerPoint presentation, only to realize that she hadn't turned it on. As she waited for it to boot up, the classroom slid into chaos.

Then there was the superstar—a young high-school math teacher, in jeans and a green polo shirt. "So let's see," he began, standing up at the blackboard. "Special right triangles. We're going to do practice with this, just throwing out ideas." He drew two triangles. "Label the length of the side, if you can. If you can't, we'll all do it." He was talking and moving quickly, which Pianta said might be interpreted as a bad thing, because this was trigonometry. It wasn't easy material. But his energy seemed to infect the class. And all the time he offered the promise of help. If you can't, we'll all do it. In a

corner of the room was a student named Ben, who'd evidently missed a few classes. "See what you can remember, Ben," the teacher said. Ben was lost. The teacher quickly went to his side: "I'm going to give you a way to get to it." He made a quick suggestion: "How about that?" Ben went back to work. The teacher slipped over to the student next to Ben, and glanced at her work. "That's all right!" He went to a third student, then a fourth. Two and a half minutes into the lesson—the length of time it took that subpar teacher to turn on the computer—he had already laid out the problem, checked in with nearly every student in the class, and was back at the blackboard, to take the lesson a step further.

"In a group like this, the standard m.o. would be: he's at the board, broadcasting to the kids, and has no idea who knows what he's doing and who doesn't know," Pianta said. "But he's giving individualized feedback. He's off the charts on feedback." Pianta and his team watched in awe.

5.

Educational-reform efforts typically start with a push for higher standards for teachers—that is, for the academic and cognitive requirements for entering the profession to be as stiff as possible. But after

you've watched Pianta's tapes, and seen how complex the elements of effective teaching are, this emphasis on book smarts suddenly seems peculiar. The preschool teacher with the alphabet book was sensitive to her students' needs and knew how to let the two girls on the right wiggle and squirm without disrupting the rest of the students; the trigonometry teacher knew how to complete a circuit of his classroom in two and a half minutes and make everyone feel as if he or she were getting his personal attention. But these aren't cognitive skills.

A group of researchers—Thomas J. Kane, an economist at Harvard's school of education; Douglas Staiger, an economist at Dartmouth; and Robert Gordon, a policy analyst at the Center for American Progress—have investigated whether it helps to have a teacher who has earned a teaching certification or a master's degree. Both are expensive, time-consuming credentials that almost every district expects teachers to acquire; neither makes a difference in the classroom. Test scores, graduate degrees, and certifications—as much as they appear related to teaching prowess—turn out to be about as useful in predicting success

as having a quarterback throw footballs into a bunch of garbage cans.

Another educational researcher, Jacob Kounin, once did an analysis of "desist" events, in which a teacher has to stop some kind of misbehavior. In one instance, "Mary leans toward the table to her right and whispers to Jane. Both she and Jane giggle. The teacher says, 'Mary and Jane, stop that!' " That's a desist event. But how a teacher desists—her tone of voice, her attitudes, her choice of words—appears to make no difference at all in maintaining an orderly classroom. How can that be? Kounin went back over the videotape and noticed that forty-five seconds before Mary whispered to Jane, Lucy and John had started whispering. Then Robert had noticed and joined in, making Jane giggle, whereupon Jane said something to John. Then Mary whispered to Jane. It was a contagious chain of misbehavior, and what really was significant was not how a teacher stopped the deviancy at the end of the chain but whether she was able to stop the chain before it started. Kounin called that ability "withitness," which he defined as "a teacher's communicating to the children by her actual

behavior (rather than by verbally announcing: 'I know what's going on') that she knows what the children are doing, or has the proverbial 'eyes in the back of her head.' " It stands to reason that to be a great teacher you have to have withitness. But how do you know whether someone has withitness until she stands up in front of a classroom of twenty-five wiggly Janes, Lucys, Johns, and Roberts and tries to impose order?

6.

Perhaps no profession has taken the implications of the quarterback problem more seriously than the financial-advice field, and the experience of financial advisers is a useful guide to what could happen in teaching as well. There are no formal qualifications for entering the field except a college degree. Financial-services firms don't look for only the best students, or require graduate degrees or specify a list of prerequisites. No one knows beforehand what makes a high-performing financial adviser different from a low-performing one, so the field throws the door wide open.

"A question I ask is, 'Give me a typical day,' " Ed Deutschlander, the co-president of North Star Resource Group, in Minneapolis, says. "If that

person says, 'I get up at five-thirty, hit the gym, go to the library, go to class, go to my job, do homework until eleven,' that person has a chance." Deutschlander, in other words, begins by looking for the same general traits that every corporate recruiter looks for.

Deutschlander says that last year his firm interviewed about a thousand people, and found forty-nine it liked, a ratio of twenty interviewees to one candidate. Those candidates were put through a four-month "training camp," in which they tried to act like real financial advisers. "They should be able to obtain in that four-month period a minimum of ten official clients," Deutschlander said. "If someone can obtain ten clients, and is able to maintain a minimum of ten meetings a week, that means that person has gathered over a hundred introductions in that four-month period. Then we know that person is at least fast enough to play this game."

Of the forty-nine people invited to the training camp, twenty-three made the cut and were hired as apprentice advisers. Then the real sorting began. "Even with the top performers, it really takes three to four years to see whether someone can

make it," Deutschlander says. "You're just scratching the surface at the beginning. Four years from now, I expect to hang on to at least thirty to forty per cent of that twenty-three."

People like Deutschlander are referred to as gatekeepers, a title that suggests that those at the door of a profession are expected to discriminate—to select who gets through the gate and who doesn't. But Deutschlander sees his role as keeping the gate as wide open as possible: to find ten new financial advisers, he's willing to interview a thousand people. The equivalent of that approach, in the N.F.L., would be for a team to give up trying to figure out who the "best" college quarterback is, and, instead, try out three or four "good" candidates.

In teaching, the implications are even more profound. They suggest that we shouldn't be raising standards. We should be lowering them, because there is no point in raising standards if standards don't track with what we care about. Teaching should be open to anyone with a pulse and a college degree—and teachers should be judged after they have started their jobs, not before. That means that the profession needs to start the equivalent of Ed

Deutschlander's training camp. It needs an apprenticeship system that allows candidates to be rigorously evaluated. Kane and Staiger have calculated that, given the enormous differences between the top and the bottom of the profession, you'd probably have to try out four candidates to find one good teacher. That means tenure can't be routinely awarded, the way it is now. Currently, the salary structure of the teaching profession is highly rigid, and that would also have to change in a world where we want to rate teachers on their actual performance. An apprentice should get apprentice wages. But if we find eighty-fifth-percentile teachers who can teach a year and a half's material in one year, we're going to have to pay them a lot—both because we want them to stay and because the only way to get people to try out for what will suddenly be a high-risk profession is to offer those who survive the winnowing a healthy reward.

Is this solution to teaching's quarterback problem politically possible? Taxpayers might well balk at the costs of trying out four teachers to find one good one. Teachers' unions have been resistant to even the slightest move away from the current tenure arrangement. But all the reformers want is for the

teaching profession to copy what firms like North Star have been doing for years. Deutschlander interviews a thousand people to find ten advisers. He spends large amounts of money to figure out who has the particular mixture of abilities to do the job. "Between hard and soft costs," he says, "most firms sink between a hundred thousand dollars and two hundred and fifty thousand dollars on someone in their first three or four years," and in most cases, of course, that investment comes to naught. But, if you were willing to make that kind of investment and show that kind of patience, you would up with a truly high-performing financial adviser. "We have a hundred and twenty-five full-time advisers," Deutschlander says. "Last year, we had seventy-one of them qualify for the Million Dollar Round Table"—the industry's association of its most successful practitioners. "We're seventy-one out of a hundred and twenty-five in that elite group." What does it say about a society that it devotes more care and patience to the selection of those who handle its money than of those who handle its children?

7.

Midway through the fourth quarter of the Oklahoma

State-Missouri game, the Tigers were in trouble. For the first time all year, they were behind late in the game. They needed to score, or they'd lose any chance of a national championship. Daniel took the snap from his center, and planted his feet to pass. His receivers were covered. He began to run. The Oklahoma State defenders closed in on him. He was under pressure, something that rarely happened to him in the spread. Desperate, he heaved the ball downfield, right into the arms of a Cowboy defender.

Shonka jumped up. "That's not like him!" he cried out. "He doesn't throw stuff up like that."

Next to Shonka, a scout for the Kansas City Chiefs looked crestfallen. "Chase never throws something up for grabs!"

It was tempting to see Daniel's mistake as definitive. The spread had broken down. He was finally under pressure. This was what it would be like to be an N.F.L. quarterback, wasn't it? But there is nothing like being an N.F.L. quarterback except being an N.F.L. quarterback. A prediction, in a field where prediction is not possible, is no more than a prejudice. Maybe that interception

means that Daniel won't be a good professional quarterback, or maybe he made a mistake that he'll learn from. "In a great big piece of pie," Shonka said, "that was just a little slice."

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